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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/599,296

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Takayoshi Moriyama

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EXAMINER

WILLIAMS, AARON

ART UNIT

PAPER NUMBER

2889

MAIL DATE

DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/599,296	Applicant(s) MORIYAMA ET AL.	
	Examiner Aaron Williams	Art Unit 2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 March 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>3/26/2008, 9/25/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to because the Figure 6 vertical axis is not labeled or described in the specification. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as “amended.” If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 – 3, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Grant Publication 2003/0214233 to Takahashi herein refer to as Takahashi '233.

Regarding claim 1 Takahashi '233 discloses, a light emitting device (Figure 3A, light emitting diode (10), refer to paragraph [0037]) comprising: a light emitting element (Figure 7, light emitting element (17), paragraph [0037]), disposed on a base member (Figure 3A, metal stem (14), paragraph [0037]) a diffusing layer (Figure 3A, Resin Layer (24), refer to paragraphs [0016], [0044]), covering the light emitting element (refer to paragraph [0040] where Takahashi '233 states the resin layer (24) covers the top of the light emitting layer); and a phosphor layer (Figure 3A, Resin Layer (25) with high concentration of Phosphor), disposed on top of the diffusing layer.

Regarding claim 2 Takahashi '233 discloses, the light emitting device according to claim 1, wherein the diffusing layer has a diffusing agent, and an added amount of the diffusing agent is 3 to 5 mass %. In paragraphs [0041], [0044], [0066] Takahashi '233 teaches that a phosphor containing Yttrium (which is a diffusing agent) has a concentration of 2 – 20 % volume in the Resign Layer (24) which anticipates the claimed range.

Regarding claim 3 Takahashi '233 discloses the light emitting device according to claim 1, wherein a bonding surface of the diffusing layer and the phosphor layer is formed to a concavely curved surface that is recessed toward the light emitting element

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side. The limitation is shown in figure 3A and 1, described in paragraph [0010] and paragraph [0040].

Regarding claim 8 Takahashi '233 discloses, an illuminating device, comprising: the light emitting device according to claim 1; and a lens disposed on the base member. Refer to figure 3A and paragraph [0046] where the external resin (29) a lens is defined as an optical device which transmits and refracts light which is made of a transparent plastic therefore this limitation is anticipated.

3. Claims 4, 6, 8 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent Publication 2002-050800 to Shigetsugu herein refer to as Shigetsugu '800.

Regarding claim 4 Shigetsugu '800 discloses, a light emitting device (Drawing 4, light emitting device, refer to claim 1) comprising: a light emitting element (Drawing 3, Light emitting device (2), refer to paragraph [0024]), disposed on a base member (Drawing 3, Glass epoxy board (1), refer to paragraph [0024]); and a phosphor layer (Drawing 3, Resin (7), refer to paragraph [0025]), having a phosphor that emits visible light upon being excited by light emitted from the light emitting element and includes phosphor particles, which are secondary particles formed of small particles of the phosphor and have a particle diameter in a range of 5 to 10 μm . Refer to paragraph [0050] where Shigetsugu '800 teaches a phosphor flake size 2 -15 μm which anticipates the claimed range.

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Regarding claim 6 Shigetsugu '800 discloses, the light emitting device according to claim 4, wherein the phosphor layer is formed by filling and solidifying a resin with a viscosity in a range of 0.1 to 10 Pas. Refer to paragraph [0030] where Shigetsugu '800 teaches the resin containing fluorescent material has a viscous 3.50 - 20 Pas which anticipates the claimed range.

Regarding claim 7 Shigetsugu '800 discloses, the light emitting device according to claim 4, wherein the light emitting element includes a light emitting diode element that emits a blue light, and the phosphor includes a yellow to orange light emitting phosphor that emits yellow light or orange light upon being excited by the blue light emitted from the light emitting diode element. Refer to paragraphs [0039] – [0040] where Shigetsugu '800 teaches excitation spectrum of 450 – 460 nm (which includes the color range of blue) and emission spectrum from 560 – 700 nm (which includes the color range of yellow).

Regarding claim 9 Shigetsugu '800 discloses, an illuminating device, comprising: the light emitting device according to claim 4; and a lens disposed on the base member. Refer to drawing 3 convex lens (11), paragraph [0003].

4. Claims 5 and 10 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent Grant Publication 2003/0080341 to Sakano herein refer to as Sakano '341.

Regarding claim 5 Sakano '341 discloses, a light emitting device (Figure 10A, LED, refer to paragraph [0207]) comprising: a light emitting element (Figure 1, LED chip (5), refer to paragraph [0082]), disposed on a base member (Figure 1, metal base (2),

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refer to paragraph [0082]); and a phosphor layer (Figure 1, sealing resin (8), refer to paragraph [0082]), having a phosphor that emits visible light upon being excited by light emitted from the light emitting element and includes phosphor particles with a particle size distribution in which two or more peaks are present. Refer to Figure 2A and paragraph [0103] where the particle size and distribution is discussed.

Regarding claim 10 Sakano '341 discloses, an illuminating device, comprising: the light emitting device according to claim 5; and a lens disposed on the base member. Refer to Figure 10A and paragraph [0207] where Sakano '341 teaches a cannon type lens (49).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Williams whose telephone number is (571) 270-5279. The examiner can normally be reached on Monday thru Friday 7:00 to 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Toan Ton can be reached on (571)272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Aaron Williams/
Examiner, Art Unit 2889

/Toan Ton/
Supervisory Patent Examiner
Art Unit 2889